

1           1. A substantially pure polypeptide comprising an amino acid sequence at least 40%  
2 identical to SEQ ID NO:1 or 10, wherein the polypeptide contains at least one bromodomain  
3 or binds to a protein selected from the group consisting of hSNF2H, hSNF2L, NCoA-62/Skip  
4 and homologues thereof.

1           2. The polypeptide of claim 1, wherein the amino acid sequence is at least 60%  
2 identical to SEQ ID NO:1 or 10.

1           3. The polypeptide of claim 1, wherein the amino acid sequence is at least 80%  
2 identical to SEQ ID NO:1 or 10.

1           4. The polypeptide of claim 1, wherein the amino acid sequence is at least 90%  
2 identical to SEQ ID NO:1 or 10.

1           5. A substantially pure polypeptide comprising the sequence of SEQ ID NO:1 or 10.

1           6. A substantially pure polypeptide comprising the amino acid sequence of SEQ ID  
2 NO:1 or 10, with up to 30 conservative amino acid substitutions, wherein the polypeptide  
3 contains at least one bromodomain or binds to a protein selected from the group consisting of  
4 hSNF2H, hSNF2L, NCoA-62/Skip and homologues thereof.

1           7. A substantially pure polypeptide encoded by a nucleic acid that hybridizes under  
2 high stringency conditions to a probe the sequence of which consists of SEQ ID NO:2 or 9,  
3 wherein the polypeptide contains at least one bromodomain or binds to a protein selected  
4 from the group consisting of hSNF2H, hSNF2L, NCoA-62/Skip and homologues thereof.

1           8. An isolated nucleic acid encoding the polypeptide of claim 1.

1           9. An isolated nucleic acid encoding the polypeptide of claim 5.

1           10. An isolated nucleic acid encoding the polypeptide of claim 6.

1           11. An isolated nucleic acid comprising a strand that hybridizes under high  
2 stringency conditions to a single stranded probe, the sequence of which consists of SEQ ID  
3 NO:2 or 9 or the complement of SEQ ID NO:2 or 9.

1           12. The isolated nucleic acid of claim 11, wherein the nucleic acid encodes a  
2 polypeptide that contains at least one bromodomain or binds to a protein selected from the  
3 group consisting of hSNF2H, hSNF2L, NCoA-62/Skip and homologues thereof.

1           13. The nucleic acid of claim 12, wherein the amino acid sequence of the polypeptide  
2 comprises SEQ ID NO:1 or 10.

1           14. The nucleic acid of claim 11, wherein the strand is at least 15 nucleotides in  
2 length.

1           15. The nucleic acid of claim 14, wherein the strand is at least 351 nucleotides in  
2 length.

1           16. The nucleic acid of claim 15, wherein the strand is at least 2200 nucleotides in  
2 length.

1           17. A vector comprising the nucleic acid of claim 8.

1           18. A vector comprising the nucleic acid of claim 9.

1           19. A vector comprising the nucleic acid of claim 10.

1           20. A vector comprising the nucleic acid of claim 11.

1           21. A vector comprising the nucleic acid of claim 12.

- 1           22. A cultured host cell comprising the nucleic acid of claim 8.
- 1           23. A cultured host cell comprising the nucleic acid of claim 9.
- 1           24. A cultured host cell comprising the nucleic acid of claim 10.
- 1           25. A cultured host cell comprising the nucleic acid of claim 11.
- 1           26. A cultured host cell comprising the nucleic acid of claim 12.
- 1           27. A method of producing a polypeptide, the method comprising culturing the  
2 cultured host cell of claim 22 in a culture, expressing the polypeptide in the cultured host  
3 cell, and isolating the polypeptide from the culture.
- 1           28. An antibody that specifically binds to the polypeptide of claim 1.
- 1           29. A method of screening for a compound that binds to the polypeptide of claim 1,  
2 the method comprising:  
3           contacting a test sample with the polypeptide or a partial peptide thereof;  
4           detecting the binding activity of the test sample to the polypeptide or a partial peptide  
5 thereof; and  
6           selecting a compound binding to the polypeptide or a partial peptide thereof.
- 1           30. A method for screening a compound that promotes or inhibits the binding of the  
2 polypeptide of claim 1 and a protein selected from the group consisting of hSNF2H,  
3 hSNF2L, NCoA-62/Skip, and homologues thereof, the method comprising  
4           contacting the polypeptide with the protein in the presence of a test compound;  
5           detecting binding between the polypeptide and the protein; and  
6           selecting a compound that increases or decreases the binding when compared with the  
7 binding in the absence of the test compound.

1            31. A compound that inhibits the binding between the polypeptide of claim 1 and a  
2 protein selected from the group consisting of hSNF2H, hSNF2L, NCoA-62/Skip, and  
3 homologues thereof, the compound being selected by the method of claim 30.